Trying 3106016892...Open

Welcome to STN International! Enter x:x
LOGINID:ssspta1600kxc
PASSWORD:
* * * * * * RECONNECTED TO STN INTERNATIONAL * * * * * *
SESSION RESUMED IN FILE 'MEDLINE, BIOSIS' AT 14:32:05 ON 18 SEP 2000
FILE 'MEDLINE' ENTERED AT 14:32:05 ON 18 SEP 2000
FILE 'BIOSIS' ENTERED AT 14:32:05 ON 18 SEP 2000
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COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	14.74	14.89

=> s (tumor associated glycoprotein-12) or (TAG-12)

L22 49 (TUMOR ASSOCIATED GLYCOPROTEIN-12) OR (TAG-12)

=> s l22 and (ser? marker)

L23 4 L22 AND (SER? MARKER)

=> dup rem

ENTER L# LIST OR (END):l23

PROCESSING COMPLETED FOR L23
L24 2 DUP REM L23 (2 DUPLICATES REMOVED)

=> d ibib abs tot

L24 ANSWER 1 OF 2 MEDLINE DUPLICATE 1
ACCESSION NUMBER: 94280122 MEDLINE
DOCUMENT NUMBER: 94280122
TITLE: Clinical value of serum tumour markers TPA, TPS, **TAG 12**, CA 15-3 and MCA in breast cancer diagnosis; results from a prospective study.
AUTHOR: Eskelinen M; Hippelainen M; Kettunen J; Salmela E; Penttila I; Alhava E
CORPORATE SOURCE: Department of Surgery, University of Kuopio, Finland.
SOURCE: ANTICANCER RESEARCH, (1994 Mar-Apr) 14 (2B) 699-703. Journal code: 59L. ISSN: 0250-7005.
PUB. COUNTRY: Greece
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals; Cancer Journals
ENTRY MONTH: 199409

AB The aim of this study was to assess the clinical value of five serum tumour markers, TPA, TPS, **TAG 12**, CA 15-3 and MCA, in the diagnosis of breast cancer. The serum values were measured in a prospective series of patients with breast cancer (n = 82) and benign breast disease (n = 25). The cut-off levels (90% specificity) determined for each test were 109.0 U/1 for TPA, 156.0 U/1 for TPS, 52.5 kU/1 cut-off level for **TAG 12** and 24.9 kU/1 cut-off level for CA 15-3, and at the 12.0 kU/1 cut-off level for MCA. Using these cut-off

levels the diagnostic sensitivity of the TPA test was 0.23, for the TPS test 0.15, 0.44 for the **TAG 12** test, 0.13 for the CA 15-3 test and 0.10 for the MCA test in detecting breast cancer. When the cut-off levels were determined at 95th percentile level for each test, the cut-off level for TPA was 143.0 U/1, 279.0 U/1 cut-off level for TPS, 105.0 kU/1 cut-off level for **TAG 12** and 36.7 kU/1 cut-off level for CA 15.3, and at the 15.3 kU/1 cut-off level for MCA. Using these cut-off levels the diagnostic sensitivity of the TPA test was 0.12, 0.01 for the TPS test, 0.06 for the **TAG 12** test, 0.06 for the CA 15-3 test and 0.06 for the MCA test in detecting breast cancer. The correlation coefficients in breast cancer patients between TPA and TPS measurements was 0.82, between TPA and **TAG 12** measurements it was 0.09, between TPA and CA 15-3 measurements it was 0.08, and 0.11 between TPA and MCA measurements. None of the **serum markers** studied were significant predictors in breast cancer diagnosis in a logistic regression analysis or in the discriminant analysis. Thus it seems that TPA, TPS, **TAG 12**, CA 15-3 and MCA have only limited value in breast cancer diagnosis, but their role in the follow-up and prediction of prognosis of breast cancer patients is a subject for further investigation.

L24 ANSWER 2 OF 2 MEDLINE DUPLICATE 2
ACCESSION NUMBER: 94250818 MEDLINE
DOCUMENT NUMBER: 94250818
TITLE: **Serum marker** combinations in human breast cancer (review).
AUTHOR: Lamerz R; Stieber P; Fateh-Moghadam A
CORPORATE SOURCE: Medical Department II, University of Munich, Germany..
SOURCE: IN VIVO, (1993 Nov-Dec) 7 (6B) 607-13. Ref: 56
Journal code: A6F. ISSN: 0258-851X.
PUB. COUNTRY: Greece
Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
(REVIEW, TUTORIAL)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199409

AB Breast cancer markers (TM) are mainly useful for monitoring the course of disease after diagnosis and first line treatment with the control options of primary treatments early recognition of reactivation and efficiency control of palliative treatment. The best single and established marker is a polymorphic epithelial mucin of the MUC-1 family the prototype of which is CA 15-3 (successive markers: MCA, CA-549, **TAG-12**, CAM 26/29) followed by CEA with lower diagnostic sensitivity and specificity and TPA/TPS reflecting more the proliferative activity. Besides former TM combinations of CEA with one or more less specific markers (e.g. PAM, CRP, beta 2m, ferritin, GCDFP, HCG, total or boney AP, gamma GT), more recent studies recommend the use of fewer markers such as TPA/TPS + CEA or CA 15-3, CA 15-3 + CEA or MCA, CA M26 + CA M29, TAG12 + CA 15-3 + MCA and CEA + CA 15-3 + ESR.

=> log h

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	17.42	17.57

SESSION WILL BE HELD FOR 60 MINUTES
STN INTERNATIONAL SESSION SUSPENDED AT 14:34:56 ON 18 SEP 2000

L2 ANSWER 5 OF 6 MEDLINE
ACCESSION NUMBER: 93391942 MEDLINE
DOCUMENT NUMBER: 93391942 PubMed ID: 7690985
TITLE: Clinical use of HCG and hCG beta determinations.
AUTHOR: Mann K; Saller B; Hoermann R
CORPORATE SOURCE: Medical Department II, Klinikum Grosshadern, University of Munich, DE.
SOURCE: SCANDINAVIAN JOURNAL OF CLINICAL AND LABORATORY INVESTIGATION. SUPPLEMENT, **(1993) 216 97-104**. Ref: 64
Journal code: UCR; 2984789R. ISSN: 0085-591X.
PUB. COUNTRY: Norway
Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
(REVIEW, TUTORIAL)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199310
ENTRY DATE: Entered STN: 19931105
Last Updated on STN: 19960129
Entered Medline: 19931021

AB Recent advances in our understanding of hCG/hCG beta synthesis by trophoblastic and nontrophoblastic tissues together with improved techniques for measuring hCG have helped to define the role of hCG as a clinical marker. HCG determination by sensitive immunometric assay enables detection of hCG immunoreactivity in normal men and women. It facilitates early detection of normal pregnancy and significantly contributes to the diagnosis of various pregnancy-related disorders, such as ectopic pregnancy, spontaneous abortion, hydatidiform mole, choriocarcinoma or Trisomy 21. Further, determination of this marker is immensely helpful to guide curative intervention in testicular cancer. For diagnosis and follow-up of patients with testicular cancer, a method measuring both hCG and hCG beta or separate methods for each component are recommended, because a significant portion of seminoma exclusively secrete free hCG beta. Also, hCG beta production by other than trophoblastic malignancies has been well recognized. A possible clinical use of hCG beta as a marker of cancers of the bladder, pancreas or biliary tract is currently debated.

L

little A or M. The only exception was the lung carcinoma cell line HU-1. Human HU-1 carcinoma cells in culture synthesize several homologous laminin chains and regulate the process of assembly, **secretion** and deposition of laminin variants into tumor basement membranes. These data indicate that the tumor cells vary among themselves with regards to laminin production and that some of them, like HU-1 may produce essentially all laminin chains simultaneously.

L

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Trying 3106016892...Open

Welcome to STN International!  Enter x:x
LOGINID:ssspta1600kxc
PASSWORD:
TERMINAL (ENTER 1, 2, 3, OR ?):2


* * * * * * * * * *   Welcome to STN International   * * * * * * * * * *

 NEWS  1           Web Page URLs for STN Seminar Schedule - N. America
 NEWS  2  Jun  2   KOREAN PATENTS NOW IN CAS DATABASES
 NEWS  3  Jun 20   WIPO/PCT Patents Fulltext Database now on STN
 NEWS  4  Jun 28   CAS covers Web-distributed preprints
 NEWS  5  Jul  7   Patent Full-text Cluster, PNTTEXT, introduced
 NEWS  6  Jul 27   EUROPATFULL - loading of backlog data
 NEWS  7  Jul 27   MORE FREQUENT UPDATES FOR DERWENT WORLD PATENTS
                   INDEX IN 2000
 NEWS  8  Jul 27   Derwent Journal Of Synthetic Methods Reloaded
                   with New Data
 NEWS  9  Jul 27   DERWENT WORLD PATENTS INDEX: FAST TRACK RELEASE OF
                   EQUIVALENT PATENTS
 NEWS 10  Aug 21   Instant Access to FDA Regulatory Information with
                   DIOGENES
 NEWS 11  Aug 21   CAS patent coverage expanded
 NEWS 12  Aug 24   TABULATE Now Available in More STN Databases
 NEWS 13  Aug 28   MEDLINE from 1958 to Date - Only on STN
 NEWS 14  Sep  7   DGENE GETSIM ALERT: Similarity Current-Awareness
                   Searching of Biosequences
 NEWS 15  Sep 11   Textile Technology Digest (TEXTILETECH) now available
                   on STN

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FILE 'HOME' ENTERED AT 13:44:23 ON 18 SEP 2000

=> file medline biosis

COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                      ENTRY     SESSION
FULL ESTIMATED COST                                    0.15        0.15
```

FILE 'MEDLINE' ENTERED AT 13:44:32 ON 18 SEP 2000

FILE 'BIOSIS' ENTERED AT 13:44:32 ON 18 SEP 2000
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=> s (TAG-12)

L1 48 (TAG-12)

=> s tag12

L2 10 TAG12

=> s l1 or l2

L3 56 L1 OR L2

=> s l3 and (ser? marker)

L4 4 L3 AND (SER? MARKER)

=> dup rem l4

PROCESSING COMPLETED FOR L4
L5 2 DUP REM L4 (2 DUPLICATES REMOVED)

=> d ibib abs tot

L5 ANSWER 1 OF 2 MEDLINE DUPLICATE 1
ACCESSION NUMBER: 94280122 MEDLINE
DOCUMENT NUMBER: 94280122
TITLE: Clinical value of serum tumour markers TPA, TPS, **TAG 12**, CA 15-3 and MCA in breast cancer diagnosis; results from a prospective study.
AUTHOR: Eskelinen M; Hippelainen M; Kettunen J; Salmela E; Penttila I; Alhava E
CORPORATE SOURCE: Department of Surgery, University of Kuopio, Finland.
SOURCE: ANTICANCER RESEARCH, (1994 Mar-Apr) 14 (2B) 699-703. Journal code: 59L. ISSN: 0250-7005.
PUB. COUNTRY: Greece
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals; Cancer Journals
ENTRY MONTH: 199409
AB The aim of this study was to assess the clinical value of five serum tumour markers, TPA, TPS, **TAG 12**, CA 15-3 and MCA, in the diagnosis of breast cancer. The serum values were measured in a prospective series of patients with breast cancer (n = 82) and benign breast disease (n = 25). The cut-off levels (90% specificity) determined for each test were 109.0 U/1 for TPA, 156.0 U/1 for TPS, 52.5 kU/1 cut-off level for **TAG 12** and 24.9 kU/1 cut-off level for CA 15-3, and at the 12.0 kU/1 cut-off level for MCA. Using these cut-off levels the diagnostic sensitivity of the TPA test was 0.23, for the TPS test 0.15, 0.44 for the **TAG 12** test, 0.13 for the CA 15-3 test and 0.10 for the MCA test in detecting breast cancer. When the cut-off levels were determined at 95th percentile level for each test, the cut-off level for TPA was 143.0 U/1, 279.0 U/1 cut-off level for TPS, 105.0 kU/1 cut-off level for **TAG 12** and 36.7 kU/1 cut-off level for CA 15.3, and at the 15.3 kU/1 cut-off level for MCA. Using these cut-off levels the diagnostic sensitivity of the TPA test was

0.12, 0.01 for the TPS test, 0.06 for the **TAG 12** test, 0.06 for the CA 15-3 test and 0.06 for the MCA test in detecting breast cancer. The correlation coefficients in breast cancer patients between TPA and TPS measurements was 0.82, between TPA and **TAG 12** measurements it was 0.09, between TPA and CA 15-3 measurements it was 0.08, and 0.11 between TPA and MCA measurements. None of the **serum markers** studied were significant predictors in breast cancer diagnosis in a logistic regression analysis or in the discriminant analysis. Thus it seems that TPA, TPS, **TAG 12**, CA 15-3 and MCA have only limited value in breast cancer diagnosis, but their role in the follow-up and prediction of prognosis of breast cancer patients is a subject for further investigation.

L5 ANSWER 2 OF 2 MEDLINE DUPLICATE 2
ACCESSION NUMBER: 94250818 MEDLINE
DOCUMENT NUMBER: 94250818
TITLE: **Serum marker** combinations in human breast cancer (review).
AUTHOR: Lamerz R; Stieber P; Fateh-Moghadam A
CORPORATE SOURCE: Medical Department II, University of Munich, Germany..
SOURCE: IN VIVO, (1993 Nov-Dec) 7 (6B) 607-13. Ref: 56
Journal code: A6F. ISSN: 0258-851X.
PUB. COUNTRY: Greece
Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
(REVIEW, TUTORIAL)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199409
AB Breast cancer markers (TM) are mainly useful for monitoring the course of disease after diagnosis and first line treatment with the control options of primary treatments early recognition of reactivation and efficiency control of palliative treatment. The best single and established marker is a polymorphic epithelial mucin of the MUC-1 family the prototype of which is CA 15-3 (successive markers: MCA, CA-549, **TAG-12**, CAM 26/29) followed by CEA with lower diagnostic sensitivity and specificity and TPA/TPS reflecting more the proliferative activity. Besides former TM combinations of CEA with one or more less specific markers (e.g. PAM, CRP, beta 2m, ferritin, GCDFP, HCG, total or boney AP, gamma GT), more recent studies recommend the use of fewer markers such as TPA/TPS + CEA or CA 15-3, CA 15-3 + CEA or MCA, CA M26 + CA M29, **TAG12** + CA 15-3 + MCA and CEA + CA 15-3 + ESR.

=> log h

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	2.38	2.53

SESSION WILL BE HELD FOR 60 MINUTES
STN INTERNATIONAL SESSION SUSPENDED AT 13:46:45 ON 18 SEP 2000

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Trying 3106016892...Open

Welcome to STN International!  Enter x:x
LOGINID:ssspta1600kxc
PASSWORD:
 * * * * * * RECONNECTED TO STN INTERNATIONAL * * * * * *
SESSION RESUMED IN FILE 'MEDLINE, BIOSIS' AT 13:51:03 ON 18 SEP 2000
FILE 'MEDLINE' ENTERED AT 13:51:03 ON 18 SEP 2000
FILE 'BIOSIS' ENTERED AT 13:51:03 ON 18 SEP 2000
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COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                       ENTRY    SESSION
FULL ESTIMATED COST                                     4.76       4.91

=> d history


     (FILE 'HOME' ENTERED AT 13:44:23 ON 18 SEP 2000)

     FILE 'MEDLINE, BIOSIS' ENTERED AT 13:44:32 ON 18 SEP 2000
L1            48 S (TAG-12)
L2            10 S TAG12
L3            56 S L1 OR L2
L4             4 S L3 AND (SER? MARKER)
L5             2 DUP REM L4 (2 DUPLICATES REMOVED)
L6          6126 S (SER? MARKER)
L7        190655 S GLYCOPROTEIN
L8           178 S L6 AND L7
L9             4 S L8 AND LECTIN
L10            2 DUP REM L9 (2 DUPLICATES REMOVED)
L11            2 S L10 NOT L5

=> s l8 and IgM

L12            3 L8 AND IGM

=> dup rem l12

PROCESSING COMPLETED FOR L12
L13            2 DUP REM L12 (1 DUPLICATE REMOVED)

=> d ibib abs tot


L13  ANSWER 1 OF 2  MEDLINE                                  DUPLICATE 1
ACCESSION NUMBER:   1998226455      MEDLINE
DOCUMENT NUMBER:    98226455
TITLE:              Anti-mitochondrial M5 type antibody represents one of the
                    serological markers for anti-phospholipid
                    syndrome distinct from anti-cardiolipin and anti-beta2-
                    glycoprotein I antibodies.
AUTHOR:             La Rosa L; Covini G; Galperin C; Catelli L; Del Papa N;
                    Reina G; Morabito A; Balestrieri G; Tincani A; Gershwin M
                    E; Meroni P L
CORPORATE SOURCE:   Istituto di Medicina Interna, Malattie Infettive &
                    Immunopatologia, IRCCS Policlinico, University of Milan,
                    Italy.
SOURCE:             CLINICAL AND EXPERIMENTAL IMMUNOLOGY, (1998 Apr) 112 (1)
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144-51.
Journal code: DD7. ISSN: 0009-9104.
PUB. COUNTRY: ENGLAND: United Kingdom
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals; Cancer Journals
ENTRY MONTH: 199807
ENTRY WEEK: 19980703
AB The aim of this study was to characterize the antigen specificity and to evaluate the diagnostic and prognostic value of anti-mitochondrial M5 type antibodies (AMA M5). Fifty-eight patients selected on the basis of their AMA M5 positivity were investigated in relationship to their clinical and serological profile. Cross-absorption studies, Western blotting and immunoprecipitation analysis were carried out for AMA M5 antigen specificity characterization. Most patients had a diagnosis of systemic lupus erythematosus (SLE) (65.5%) or of primary anti-phospholipid syndrome (PAPS) (24%); all the patients were positive for IgG or **IgM** anti-cardiolipin (anti-CL) antibodies and 49% of them also displayed lupus anticoagulant (LA) activity. Anti-beta2-**glycoprotein** I (beta2-GPI) IgG were detectable in 30/38 sera (78.9%) and **IgM** in 34/38 (89.4%). While anti-CL and anti-beta2-GPI IgG antibodies were significantly associated with history of thrombosis and fetal loss, AMA M5 displayed a statistical association only for thrombocytopenia and recurrent fetal loss. Absorption with human beta2-GPI both in free solution or in solid phase as well as with CL liposomes or CL/beta2-GPI liposome complexes did not affect AMA M5 fluorescence. While AMA M5 activity is absorbed by whole mitochondrial preparations, no specific reactivities against several human, bovine and rat mitochondrial proteins could be detected in Western blotting and immunoprecipitation studies. AMA M5 appear to be detectable in both primary and secondary APS, displaying a strong association with the presence of thrombocytopenia and fetal loss. Although strictly related to anti-phospholipid antibodies, AMA M5, anti-CL and anti-beta2-GPI antibodies represent distinct **serological markers** of the APS.

L13 ANSWER 2 OF 2 MEDLINE
ACCESSION NUMBER: 1998236659 MEDLINE
DOCUMENT NUMBER: 98236659
TITLE: [Antibodies to beta2-**glycoprotein** I in systemic lupus erythematosus: new laboratory marker of antiphospholipid syndrome].
Antitela k beta2-lipoproteinu I pri sistemnoi krasnoi volchanke: novyi laboratornyi marker antifosfolipidnogo sindroma.
AUTHOR: Reshetniak T M; Derksen R V; Alekberova Z S; Horbach D; De Groot F; Nasonov E L; Kalashnikova L A; Match E S; Nasonova V A
SOURCE: KLINICHESKAIA MEDITSINA, (1998) 76 (3) 36-40.
Journal code: KW2. ISSN: 0023-2149.
PUB. COUNTRY: RUSSIA: Russian Federation
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: Russian
ENTRY MONTH: 199808
ENTRY WEEK: 19980802
AB Antibodies to beta 2-**glycoprotein** in the serum of patients with antiphospholipid syndrome (APS) were found by many investigators, but their results appeared contraversional. We studied clinical significance

of antibodies to beta 2-**glycoprotein** I (anti-beta 2-GPI) in patients with SLE. 69 patients with verified SLE were examined for lupus anticoagulant (LA), antibodies to cardiolipin (aCL) and anti-beta 2-GPI. 44(65%), 46(67%), 49(71%), 19(28%), 16(23%) patients were positive for LA, IgG-aCL, **IgM**-aCL, IgG-anti-beta 2-GPI and **IgM**-anti-beta 2-GPI, respectively. Hyperproduction of IgG-anti-beta 2-GPI correlated with APS development as a whole, its separate clinical symptoms (venous and arterial thromboembolism, obstetric pathology and thrombocytopenia) and some comcomitant clinical signs (trophic crural ulcer, hemolytic anemia, valvular heart disorders). Moreover, an increase in concentration of **IgM**-anti-beta 2-GPI was associated with habitual abortion. Both isotypes of anti-beta 2-GPI occurred more frequently in the sera positive by LA and aCL. It is interesting that we discovered IgG-anti-beta 2-GPI more often in early than late postthrombolytic period. Thus, anti-2b2-GPI is a new **serological marker** of APS. Its detection is clinically important for upgrading diagnosis of APS.

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=> d history

     (FILE 'HOME' ENTERED AT 13:44:23 ON 18 SEP 2000)

     FILE 'MEDLINE, BIOSIS' ENTERED AT 13:44:32 ON 18 SEP 2000
L1            48 S (TAG-12)
L2            10 S TAG12
L3            56 S L1 OR L2
L4             4 S L3 AND (SER? MARKER)
L5             2 DUP REM L4 (2 DUPLICATES REMOVED)
L6          6126 S (SER? MARKER)
L7        190655 S GLYCOPROTEIN
L8           178 S L6 AND L7
L9             4 S L8 AND LECTIN
L10            2 DUP REM L9 (2 DUPLICATES REMOVED)
L11            2 S L10 NOT L5
L12            3 S L8 AND IGM
L13            2 DUP REM L12 (1 DUPLICATE REMOVED)

=> s l8 and lung

L14           22 L8 AND LUNG

=> s l14 and py<1997

L15           12 L14 AND PY<1997

=> dup rem l15

PROCESSING COMPLETED FOR L15
L16            9 DUP REM L15 (3 DUPLICATES REMOVED)

=> d ibib abs tot


L16  ANSWER 1 OF 9  MEDLINE
ACCESSION NUMBER:   97359279      MEDLINE
DOCUMENT NUMBER:    97359279
TITLE:              Clinical usefulness of KL-6 as a serum
                    marker of idiopathic interstitial pneumonia.
AUTHOR:             Kohno N
CORPORATE SOURCE:   Second Department of Internal Medicine, Ehime University
                    School of Medicine, Japan.
```

SOURCE: NIHON KYOBU SHIKKAN GAKKAI ZASSHI. JAPANESE JOURNAL OF THORACIC DISEASES, **(1996 Dec)** 34 Suppl 186-9.
Ref: 18
Journal code: KQD. ISSN: 0301-1542.
PUB. COUNTRY: Japan
Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
(REVIEW, TUTORIAL)
LANGUAGE: Japanese
ENTRY MONTH: 199711

AB KL-6 is a high-molecular-weight **glycoprotein** that is classified in cluster 9 among pulmonary cell antigens. Levels of KL-6 were found to be abnormally high in sera from patients with various types of interstitial pneumonitis such as idiopathic interstitial pneumonia, which can progress to pulmonary fibrosis. Levels of KL-6 in serum can be useful **serum markers** in the diagnosis of idiopathic interstitial pneumonia, in monitoring in the evaluation of disease activity, as a prognostic factor, and as a predictor of response to therapy.

L16 ANSWER 2 OF 9 MEDLINE DUPLICATE 1
ACCESSION NUMBER: 95361562 MEDLINE
DOCUMENT NUMBER: 95361562
TITLE: KL-6: a **serum marker** for interstitial pneumonia.
AUTHOR: Kobayashi J; Kitamura S
CORPORATE SOURCE: Department of Pulmonary Medicine, Jichi Medical School, Tochigi, Japan..
SOURCE: CHEST, **(1995 Aug)** 108 (2) 311-5.
Journal code: D1C. ISSN: 0012-3692.
PUB. COUNTRY: United States
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Abridged Index Medicus Journals; Priority Journals; Cancer Journals
ENTRY MONTH: 199511

AB KL-6 is a mucinous high-molecular weight **glycoprotein**, expressed on type 2 pneumonocytes, which is reported to be elevated in the serum and bronchoalveolar lavage fluid of patients with interstital pneumonia. A total of 118 samples from 112 patients were measured, including 51 samples with three classes of interstital **lung** disease and 67 samples with 6 classes of noninterstital **lung** diseases, in order to clarify whether it was a useful marker of pneumonitis activity. The KL-6 level was significantly higher in patients with pneumonitis (1,187 +/- 689 U/mL; range, 224 to 2,656 U/mL) than in patients without pneumonitis (309 +/- 157 U/mL; range, 123 to 855 U/mL). The KL-6 level was also significantly higher in patients with clinically active pneumonitis (1,497 +/- 560) compared with inactive pneumonitis (441 +/- 276) ($p < 0.001$). The optimal criterion for separating patients with active pneumonitis from patients without pneumonitis was a KL-6 level of 500 to 700 U/mL according to receiver operating characteristic analysis. These results suggest that KL-6 is a useful marker for the clinical diagnosis of pneumonitis and for the evaluation of disease activity.

L16 ANSWER 3 OF 9 MEDLINE
ACCESSION NUMBER: 96014891 MEDLINE
DOCUMENT NUMBER: 96014891
TITLE: Evaluation of serum KL-6 levels in patients with pulmonary tuberculosis.

AUTHOR: Inoue Y; Nishimura K; Shiode M; Akutsu H; Hamada H; Fujioka
S; Fujino S; Yokoyama A; Kohno N; Hiwada K
CORPORATE SOURCE: Second Department of Internal Medicine, Ehime University School of Medicine, Japan..
SOURCE: TUBERCLE AND LUNG DISEASE, **(1995 Jun)** 76 (3) 230-3.
Journal code: A8C. ISSN: 0962-8479.
PUB. COUNTRY: SCOTLAND: United Kingdom
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199601

AB SETTING: KL-6, a human MUC-1 mucin preferentially expressed on type II pneumocytes, is a sensitive **serum marker** for evaluating alveolar damage of interstitial pneumonia and pulmonary fibrosis. Some patients with pulmonary tuberculosis develop severe respiratory dysfunction caused by extensive pulmonary fibrosis, compensatory emphysema and fibrous pleural thickening. OBJECTIVE: To evaluate the clinico-pathological significance of KL-6 in pulmonary tuberculosis. DESIGN: Serum KL-6 levels were measured in sera from 57 patients with active pulmonary tuberculosis and 38 healthy controls by a sandwich-type enzyme-linked immunosorbent assay. Immunohistochemistry was performed by an avidin-biotin-peroxidase complex method. RESULTS: KL-6 levels were significantly higher in the patients than in the healthy controls (518 +/- 693 [SD] vs 227 +/- 91 U/ml, $P < 0.001$) and increased significantly according to the extent of pulmonary lesions evaluated by chest X-ray ($P < 0.001$). There was a significant negative correlation between serum KL-6 levels and % vital capacity (VC) ($r = 0.642$, $P < 0.05$).

KL-6 was strongly expressed on proliferated type II pneumocytes and cuboidal epithelial cells adjacent to thickened intralobular septa and pleura. CONCLUSIONS: In pulmonary tuberculosis, serum KL-6 originates from
proliferated type II pneumocytes and cuboidal epithelial cells, and is a useful marker presenting the degree and extent of pulmonary fibroproductive lesions.

L16 ANSWER 4 OF 9 MEDLINE
ACCESSION NUMBER: 95355814 MEDLINE
DOCUMENT NUMBER: 95355814
TITLE: Circulating autoantibodies as **serological markers** in the differential diagnosis of pulmonary renal syndrome [see comments].
COMMENT: Comment in: J Intern Med 1996 Jul;240(1):43
AUTHOR: Saxena R; Bygren P; Arvastson B; Wieslander J
CORPORATE SOURCE: Department of Nephrology, University Hospital of Lund, Sweden.
SOURCE: JOURNAL OF INTERNAL MEDICINE, **(1995 Aug)** 238 (2) 143-52.
Journal code: I2G. ISSN: 0954-6820.
PUB. COUNTRY: ENGLAND: United Kingdom
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Cancer Journals; Priority Journals
ENTRY MONTH: 199511

AB OBJECTIVES. Pulmonary renal syndrome (**lung** haemorrhage and glomerulonephritis) is a fulminant condition that warrants a rapid diagnosis and treatment to prevent mortality and preserve renal functions.

However, the patients frequently present with non-specific pulmonary symptoms in the early phase of the syndrome and the diagnosis is often missed. Recently, several autoantibodies have been described in association with various forms of glomerulonephritis. We evaluated the association as well as the diagnostic and the prognostic significance of

these antibodies in pulmonary renal syndrome. DESIGN. Retrospective clinical study. SETTING. University Hospital. SUBJECTS. Forty consecutive patients with biopsy verified glomerulonephritis and overt haemoptysis or pulmonary infiltrates compatible with **lung** haemorrhage. INTERVENTIONS. Analysis of proteinase 3 antineutrophil cytoplasm antibodies (PR3-ANCA), myeloperoxidase (MPO)-ANCA, antiglomerular basement membrane (GBM) and anti-entactin antibodies. RESULTS. Thirty-six (90%) patients possessed one or more autoantibodies. Twenty-seven (70%) patients had ANCA (PR3-ANCA, MPO-ANCA or both). The remaining positive patients (n = 9) had anti-GBM antibodies. Only two patients had anti-entactin antibodies, suggesting a poor association of these antibodies with PRS. The majority of patients with anti-GBM antibodies had a very poor clinical outcome (five irreversible renal failure; three deaths). On the other hand, despite no significant difference in clinical features or renal morphology from patients with anti-GBM antibodies, 19 patients (70%) with ANCA recovered completely following treatment. CONCLUSIONS. Our study demonstrated that the presence of autoantibodies is a predominant feature of PRS and that the type of immunologic injury is of paramount importance in determining the course of illness in this syndrome. Analysis of the aforementioned antibodies can help in an early differential diagnosis and thus, in better management of PRS.

L16 ANSWER 5 OF 9 MEDLINE
ACCESSION NUMBER: 95132871 MEDLINE
DOCUMENT NUMBER: 95132871
TITLE: [Immunopathology of cytomegalovirus pneumonia and allograft rejection in **lung** transplantation. Group of Pulmonary Transplantation of the University Paris-Sud]. Immunopathologie des pneumopathies `a cytomegalovirus et des rejets d'allogreffes chez le transplante pulmonaire. Groupe de Transplantation Pulmonaire de l'Universite Paris-Sud.
AUTHOR: Humbert M; Emilie D
CORPORATE SOURCE: Service de Pneumologie, Hopital Antoine-Becl`ere, Clamart.
SOURCE: REVUE DES MALADIES RESPIRATOIRES, **(1994)** 11 (6) 559-64. Ref: 37
Journal code: RZ9. ISSN: 0761-8425.
PUB. COUNTRY: France
Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
(REVIEW, TUTORIAL)
LANGUAGE: French
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199504

AB In order to better understand the immunopathology of acute complications of **lung** transplantation we have analysed the different parameters of cytotoxic cell and macrophage activation during the course of pulmonary allograft rejection and cytomegalovirus pneumonia. In transplanted patients presenting with an acute pulmonary allograft rejection, a cytomegalovirus pneumonia or no complication (control group), we have studied, first **serum markers** of immune activation: interleukin-2 soluble receptor (IL-2sR), neopterin, IL-6, TNF soluble receptors (TNF-sR55 and TNF-sR75). Secondly the intrapulmonary compartmentalisation of allogenic and antiviral responses were evaluated by studying bronchoalveolar lavage fluid (BAL). The level of IL-6 was measured in BAL supernatants and the gene expression of two cytokines (IL-1 beta and IL-6) and two markers of activated cytotoxic cells (granzyme B and perforin) were studied by in situ hybridisation on the alveolar cells. Acute pulmonary allograft rejection was characterised by

the paucity of systemic stigmata of immune activation and by the intrapulmonary compartmentalisation of the inflammatory response principally expressed by an increase in alveolar concentration of IL-6, TNF-sR55 and TNF-sR75, and an increased expression of the IL-1 beta gene. Cytomegalovirus pneumonia is accompanied by an intense local and systemic inflammatory activity as evidenced by the serum level of IL-2sR, neopterin, TNF-sR55 and TNF-sR75, the alveolar concentration of IL-6, TNF-sR55 and TNF-sR75, and the expression of monokine (IL-1 beta, IL-6) and of cytotoxic mediator (granzyme b, perforin) genes by BAL cells. These mediators could participate in the elaboration of an acute or chronic inflammatory response which would be potentially deleterious for the graft.

L16 ANSWER 6 OF 9 MEDLINE
ACCESSION NUMBER: 94252752 MEDLINE
DOCUMENT NUMBER: 94252752
TITLE: Difference in sero-diagnostic values among KL-6-associated mucins classified as cluster 9.
AUTHOR: Kohno N; Inoue Y; Hamada H; Fujioka S; Fujino S; Yokoyama A; Hiwada K; Ueda N; Akiyama M
CORPORATE SOURCE: Second Department of Internal Medicine, Ehime University School of Medicine, Japan..
SOURCE: INTERNATIONAL JOURNAL OF CANCER. SUPPLEMENT, **(1994)** 8 81-3.
Journal code: GRM. ISSN: 0020-7136.
PUB. COUNTRY: United States
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals; Cancer Journals
ENTRY MONTH: 199409

AB KL-6 classified as Cluster 9 (MUC-I) is a circulating high-molecular-weight mucin-like molecule. Serum level of KL-6 was measured by a sandwich assay using KL-6 antibody as not only a catcher but also as a tracer. We established 2 additional monoclonal antibodies (MAbs), LISA 101 and EH-123, reacting with KL-6 epitopes different from the epitope recognized by KL-6 antibody. The KL-6-associated mucins detected by the sandwich assay using LISA 101 or EH-123 antibody as a catcher and KL-6 antibody as a tracer were designated as LISA 1-6 and CAM 123-6 respectively. The diagnostic values as the **serum markers** of KL-6, LISA 1-6 and CAM 123-6 were evaluated measuring their levels in the same serum from healthy individuals and from patients with pulmonary, pancreatic and breast adenocarcinomas. KL-6 was increased abnormally at high rates of more than 50% in pancreatic cancer and in benign **lung** diseases, LISA 1-6 only in pancreatic cancer, and CAM 123-6 only in pulmonary adenocarcinoma. In benign **lung** diseases, however, LISA 1-6 and CAM 123-6 were increased abnormally at the rates of only 5.3% and 0% respectively. These observations clearly indicate that LISA 1-6 and CAM 123-6 constitute a part of KL-6, but that they are superior to KL-6 as tumor markers for pancreatic cancer and for pulmonary adenocarcinoma respectively, because of their much lower false-positive rates.

L16 ANSWER 7 OF 9 MEDLINE DUPLICATE 2
ACCESSION NUMBER: 93378197 MEDLINE
DOCUMENT NUMBER: 93378197
TITLE: KL-6, a mucin-like **glycoprotein**, in bronchoalveolar lavage fluid from patients with interstitial **lung** disease.
AUTHOR: Kohno N; Awaya Y; Oyama T; Yamakido M; Akiyama M; Inoue Y; Yokoyama A; Hamada H; Fujioka S; Hiwada K
CORPORATE SOURCE: Second Department of Internal Medicine, Ehime University School of Medicine, Japan..
SOURCE: AMERICAN REVIEW OF RESPIRATORY DISEASE, **(1993 Sep)** 148 (3) 637-42.

Journal code: 426. ISSN: 0003-0805.
PUB. COUNTRY: United States
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Abridged Index Medicus Journals; Priority Journals
ENTRY MONTH: 199312

AB KL-6, a mucin-like high-molecular-weight **glycoprotein**, is a **serum marker** indicating the disease activity of pneumonitis, such as idiopathic pulmonary fibrosis (IPF), hypersensitivity pneumonitis, and sarcoidosis. Immunohistochemical studies have shown that KL-6 is strongly expressed on Type 2 pneumocytes and also exists on epithelial cells in other organs. It has not been clarified whether the increased levels of KL-6 in sera from patients with pneumonitis are derived from the lower respiratory tract. In this study, KL-6 levels were evaluated in bronchoalveolar lavage fluid (BALF) samples from 9 healthy control subjects and 32 patients with interstitial pneumonitis. An abnormally high level of KL-6 in BALF was observed in 70% (7 of 10) of patients with IPF, 64% (9 of 14) of patients with sarcoidosis, and 100% (8 of 8) of patients with hypersensitivity pneumonitis but in none of the healthy control subjects. KL-6 levels in BALF were significantly correlated with numbers of total cells ($p < 0.001$), lymphocytes ($p < 0.001$), and neutrophils ($p < 0.05$) and with concentrations of albumin ($p < 0.001$) and total protein ($p < 0.001$) in BALF and, further, with serum KL-6 levels ($p < 0.01$). These results indicate that increased levels of serum KL-6 in patients with pneumonitis reflect the production levels of KL-6 derived from damaged or regenerating Type 2 pneumocytes in the lower respiratory tract.

L16 ANSWER 8 OF 9 MEDLINE DUPLICATE 3
ACCESSION NUMBER: 91369427 MEDLINE
DOCUMENT NUMBER: 91369427
TITLE: Clinical evaluation of serum tumor-associated **glycoprotein**-72 as a novel tumor marker for colorectal cancer patients.
AUTHOR: Guadagni F; Roselli M; Amato T; Cosimelli M; Mannella E; Tedesco M; Grassi A; Casale V; Cavaliere F; Greiner J W; et al
CORPORATE SOURCE: Laboratory of Clinical Pathology, Regina Elena National Cancer Institute, Rome, Italy.
SOURCE: JOURNAL OF SURGICAL ONCOLOGY. SUPPLEMENT, **(1991)** 2 16-20.
Journal code: ADB. ISSN: 1046-7416.
PUB. COUNTRY: United States
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals; Cancer Journals
ENTRY MONTH: 199112

AB A novel tumor marker, tumor-associated **glycoprotein**-72 (TAG-72), has been identified using monoclonal antibody (MAb) B72.3. Using immunohistochemical techniques, TAG-72 has been found in carcinomas of various origin including colon, stomach, breast, **lung**, prostate, and ovary, as well as in body fluids. The presence of TAG-72 in serum samples from 260 patients with colorectal disease (malignant or benign) has been evaluated using the CA72-4 assay. Approximately 40% of patients with colorectal cancer exhibit elevated levels of this marker; moreover, the presence of positive levels of TAG-72 significantly correlates with advanced stages of disease, suggesting that TAG-72 may be a good marker of advanced colorectal cancer. Only 2% of the patients diagnosed with colorectal disease had elevated TAG-72 serum levels indicating the high

specificity of this marker. A comparative study with carcinoembryonic antigen (CEA) serum levels showed a complementarity of the two tumor markers; in fact, 49.6% of CEA negative cases scored positive for TAG-72. A longitudinal evaluation of TAG-72 serum levels in 31 patients with malignant disease was performed. The results indicate that patients with increasing TAG-72 serum levels postoperatively may be indicative of recurrent disease. In 60% of patients in which significant changes of CEA levels could not be detected, TAG-72 showed rising positive levels prior to clinical evidence of recurrent disease. These results suggest that the simultaneous use of TAG-72 and CEA **serum markers** may be useful in the diagnosis of recurrent disease and therefore play an important role in the clinical management of cancer patients.

L16 ANSWER 9 OF 9 MEDLINE
ACCESSION NUMBER: 87098694 MEDLINE
DOCUMENT NUMBER: 87098694
TITLE: Adenosine deaminase complexing protein in cancer studies.
AUTHOR: Ten Kate J; Dinjens W N; Meera Khan P; Bosman F T
SOURCE: ANTICANCER RESEARCH, **(1986 Sep-Oct)** 6 (5) 983-8.
Ref: 37
Journal code: 59L. ISSN: 0250-7005.
PUB. COUNTRY: Greece
Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
LANGUAGE: English
FILE SEGMENT: Priority Journals; Cancer Journals
ENTRY MONTH: 198704

AB ADCP is a dimeric **glycoprotein** of about 200KD, for which the physiological role is still obscure. This protein occurs mainly in a membrane bound form in various human tissues. In this paper we review the current literature on ADCP in cancer studies. Soluble ADCP was described to be consistently decreased or absent in cancers of **lung**, liver, kidney and colon. These findings could not be confirmed by immunohistochemical and quantitative biochemical studies in a series of colorectal-, prostatic-, and renal carcinomas. Only in a third of these tumors a decrease could be demonstrated, whereas in the other cases unaltered or even increased amounts were observed. However, in virally transformed human fibroblasts a consistent decrease or complete absence of ADCP was seen, while primary fibroblasts were found to contain high amounts of this protein. Recently, the use of ADCP as a differentiation marker in colonic cancer has been advocated. Furthermore the presence of ADCP in the serum of renal adenocarcinoma patients was found to be indicative of a better chance of five year survival. These studies suggest that ADCP may be a differentiation marker useful for immunohistochemical characterization of colonic and renal carcinomas as well as a **serum marker** useful for follow-up studies of these types of cancer, analogous to CEA. Finally, ADCP has been found to be selectively expressed by certain T-cell subsets and henceforth may be useful in the studies on leukemias.

L4 ANSWER 14 OF 29 BIOSIS COPYRIGHT 2001 BIOSIS
ACCESSION NUMBER: 1995:536283 BIOSIS
DOCUMENT NUMBER: PREV199598550583
TITLE: A biochemical study of antigen A2F4 associated with human **lung adenocarcinoma**.
AUTHOR(S): Gorbachev, A. V. (1); Egorova, S. G.; Myagkov, A. V.
CORPORATE SOURCE: (1) Dep. Cell. Physiol. Immunol., Fac. Biol., M.V. Lomonosov Mosc. State Univ., 119899 Moscow Russia
SOURCE: Biokhimiya, (1994) Vol. 59, No. 9, pp. 1401-1405. ISSN: 0320-9725.
DOCUMENT TYPE: Article
LANGUAGE: Russian
SUMMARY LANGUAGE: Russian; English
AB The tissue-specific antigen associated with human lung adenocarcinoma had been investigated using immunological and biochemical methods. The antigen, which represents a new tissue-specific marker, has a molecular weight of 400 kDa. Purification of the antigen was achieved by gel chromatography. Antibody binding to the antigen was studied using enzyme-linked immunoassay after preincubation with enzymes or treatment with periodate. The results obtained testify to the proteinaceous nature of the antigenic determinant and the **glycoprotein** nature of the antigen.

L4 ANSWER 19 OF 29 MEDLINE DUPLICATE 9
ACCESSION NUMBER: 92360322 MEDLINE
DOCUMENT NUMBER: 92360322 PubMed ID: 1497905
TITLE: Characterization of the mucin differentiation in human **lung adenocarcinoma** cell lines.
AUTHOR: Yang P C; Luh K T; Wu R; Wu C W
CORPORATE SOURCE: Department of Internal Medicine and Clinical Pathology, National Taiwan University Hospital, Taipei, Republic of China.
SOURCE: AMERICAN JOURNAL OF RESPIRATORY CELL AND MOLECULAR BIOLOGY,
(1992 Aug) 7 (2) 161-71.
Journal code: AOB; 8917225. ISSN: 1044-1549.
PUB. COUNTRY: United States
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199209
ENTRY DATE: Entered STN: 19920925
Last Updated on STN: 19970203
Entered Medline: 19920911

AB Four human lung adenocarcinoma cell lines were established in serum-free F12 medium supplemented with insulin, transferrin, hydrocortisone, cholera toxin, selenium, epidermal growth factor, bovine hypothalamic extract, and retinoic acid. Histochemical analyses with periodic acid-Schiff with and without diastase treatment (PAS-D technique) and immunocytochemistry with a mucin-specific monoclonal antibody demonstrated that three of the cell lines (CL2, CL3, and NCL2) were capable of mucin production. Biochemical characterizations of mucin produced by adenocarcinoma cells were focused on one of the cell lines, CL2 cells, which showed the most prominent reactivity with mucin-specific monoclonal antibody. Biochemical analysis using the mucin precursors [3H]glucosamine and [14C]serine indicated that CL2 cells can synthesize high-molecular-weight (M(r) greater than 200 kD) **glycoprotein** molecules that can be immunoprecipitated by this mucin-specific monoclonal antibody. The high-molecular-weight **glycoproteins** isolated from CL2 cells specifically reacted with mucin-specific monoclonal antibody by Western blot analysis, and composition analyses showed high levels of serine and threonine and a low level of aromatic amino acids, which are similar to human airway mucin. These observations suggest that lung adenocarcinoma CL2 cells cultured in this serum-free medium can retain function of airway mucin synthesis. Cell kinetic studies of these four cell lines showed that the cell line (CL1) without the mucin differentiation had a higher proliferative index and a shorter population doubling time as compared with the other three cell lines (CL2, CL3, and NCL2) with mucin differentiation. Examination of the retinoblastoma protein expressions in these adenocarcinoma cell lines revealed a phosphorylated pattern that correlated inversely with the mucin synthesis status of these cell lines.(ABSTRACT TRUNCATED AT 250 WORDS)

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L4 ANSWER 23 OF 29 MEDLINE DUPLICATE 10
ACCESSION NUMBER: 90163929 MEDLINE
DOCUMENT NUMBER: 90163929 PubMed ID: 2624104
TITLE: Alterations in nonspecific cross-reacting antigen localization during cell culture. An immunoelectron microscopic study using a human **lung adenocarcinoma** cell line.
AUTHOR: Suemizu H; Tsutsumi Y; Watanabe K; Kuroki M; Matsuoka Y
CORPORATE SOURCE: Department of Pathology, Tokai University School of Medicine, Kanagawa Japan.
SOURCE: ACTA PATHOLOGICA JAPONICA, (1989 Dec) 39 (12) 772-8. Journal code: 1NE; 0372637. ISSN: 0001-6632.
PUB. COUNTRY: Japan
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199003
ENTRY DATE: Entered STN: 19900601
Last Updated on STN: 19970203
Entered Medline: 19900321

AB Nonspecific cross-reacting antigen (NCA), a constituent of the carcinoembryonic antigen family, was localized ultrastructurally in a human lung adenocarcinoma cell line, PC-9. NCA was distributed predominantly on the plasma membrane in the early phases of cell culture. Deletion of fetal bovine serum (FBS) from the culture medium suppressed cell division without significantly altering cell viability, and induced a dramatic but reversible change in NCA localization. Under these conditions, NCA was localized to membrane degradation products within cytoplasmic vesicles and vacuoles. Acid phosphatase activity was also present in some of these intracellular structures. Similar changes in NCA localization were seen in cells cultured with FBS at day 6 when the cells reached a plateau stage of growth. These findings strongly suggest that plasma membrane degradation is accelerated by the cessation of cell growth. Cytoplasmic reactivity for NCA in cancer cells may therefore reflect degradation of plasma membrane-associated NCA and may not necessarily be correlated with increased systhesis of this **glycoprotein**.

L4 ANSWER 24 OF 29 MEDLINE DUPLICATE 11

ACCESSION NUMBER: 89191148 MEDLINE
DOCUMENT NUMBER: 89191148 PubMed ID: 2648877
TITLE: The immunohistochemical diagnosis of mesothelioma. Differentiation of mesothelioma and **lung adenocarcinoma**.
AUTHOR: Ordonez N G
CORPORATE SOURCE: Department of Pathology, University of Texas M.D. Anderson Cancer Center, Houston 77030.
SOURCE: AMERICAN JOURNAL OF SURGICAL PATHOLOGY, (1989 Apr) 13 (4) 276-91.
Journal code: 3YV; 7707904. ISSN: 0147-5185.
PUB. COUNTRY: United States
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 198905
ENTRY DATE: Entered STN: 19900306
Last Updated on STN: 19900306
Entered Medline: 19890502

AB Despite numerous histochemical, ultrastructural, and immunohistochemical studies, differentiation between malignant epithelial pleural mesothelioma and adenocarcinoma of the lung remains extremely difficult. Although there is general agreement that immunohistochemical methods can aid in this distinction, some studies have produced conflicting results with some of the proposed markers for mesothelioma. To obtain comparable and reproducible results, 19 unequivocal epithelial mesotheliomas and 23 unequivocal primary lung adenocarcinomas were studied by the avidin-biotin-peroxidase complex method on formalin-fixed, paraffin-embedded tissue specimens. Well-characterized, commercially available antibodies to carcinoembryonic antigen (CEA), a high- and low-molecular-weight keratin, vimentin, epithelial membrane antigen, human milk fat globule, Leu-M1, TAG-72 (identified by monoclonal antibody B72.3), beta 1 pregnancy-specific **glycoprotein** (SP1), human placental lactogen, secretory component (SC), CA19-9, and S-100 protein were used. Twenty-one adenocarcinomas (91.3%) reacted for CEA, 14 (60.9%) for Leu-M1, 14 (60.9%) for SC, nine (39.1%) for CA19-9, and eight (34.8%) for SP1; no mesotheliomas stained for any of these markers. Nineteen adenocarcinomas (82.6%) and one mesothelioma (5.3%) reacted with B72.3. Adenocarcinomas and mesotheliomas did not significantly vary in reaction to the remaining antibodies. None of the antibodies used was specific for mesothelioma, but CEA was the single most useful marker. One of the two adenocarcinomas negative for CEA was positive for TAG-72, Leu-M1, and SC, and the only B72.3-positive mesothelioma was negative for CEA, Leu-M1, SC, CA19-9, and SP1. These findings indicate that greater sensitivity in differentiating mesothelioma and adenocarcinoma can be achieved by immunostaining for both CEA and one or more of the markers TAG-72 (B72.3), Leu-M1, SC (these three have the highest sensitivity and specificity after CEA), CA19-9, and SP1.

L7 ANSWER 2 OF 24 MEDLINE
ACCESSION NUMBER: 96210739 MEDLINE
DOCUMENT NUMBER: 96210739 PubMed ID: 8640889
TITLE: [Lectins in pulmonary adenocarcinomas].
Lektiny v plicnich adenokarcinomech.
AUTHOR: Mirejovsky P; Vernerova Z
CORPORATE SOURCE: Hlavuv I. patologickoanatomicky ustav 1. LF UK a VFN, Praha.
SOURCE: CESKOSLOVENSKA PATOLOGIE, **(1995 Dec)** 31 (4) 107-10.
Journal code: CVW; 0050734. ISSN: 1210-7875.
PUB. COUNTRY: Czech Republic
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: Czech
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199607
ENTRY DATE: Entered STN: 19960726
Last Updated on STN: 19960726
Entered Medline: 19960712

AB A relatively specific binding of lectins to various glycids enabled authors to evaluate the exosecretion characteristic of lung carcinomas closer than by HE, investigation of **mucins** and immunohistochemical epithelial **markers**. The main subtypes of **lung adenocarcinomas** (usual of acinar, tubulopillary cubocellular or cylindrocellular, solid with mucus production), pseudosarcoma, large cell and undifferentiated carcinomas from 9 bioptical samples were therefore compared as to binding of 5 lectins with preferential affinity to glucose/mannose (CON A), acetylglucosamin (WGA) and acetylgalactosamin (PNA, RCA, HPA). All the subtypes of adenocarcinoma as well as undifferentiated carcinoma showed a strong binding of bean lectin (CON A) and a slighter binding of ricinus (RCA) and wheat germ (WGA) lectins. Binding of Helix pomatia lectin (HPA) was nearly parallel to that of CON A even in large cell carcinoma (without **mucin** positivity)-except in undifferentiated carcinoma (in HE reminding of squamous carcinoma but CK negative). Peanut lectin (PNA) binding correlated with the production of acid glycosaminglycans and its lacking might serve as an indirect sign of Clara cell origin in some cubocellular bronchioloalveolar carcinomas which was otherwise difficult to prove. Lections mostly did not bind to mucus vacuoles and cytoplasmic granulary positivities represented **secretion** granules; marginal membranous positivities represented glycocalyx or lipoproteinaceous layer released by Clara cells in accordance with the expression of EMA. In pseudosarcoma a gradual binding of CON A from sarcomatoid to epithelial areas allowed to evaluate their connection better than according to an expression of cytokreatin.

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L7 ANSWER 3 OF 24 MEDLINE
ACCESSION NUMBER: 95057036 MEDLINE
DOCUMENT NUMBER: 95057036 PubMed ID: 7967523
TITLE: Selective assembly of laminin variants by human carcinoma cells.
AUTHOR: Wewer U M; Wayner E A; Hoffstrom B G; Lan F; Meyer-Nielsen B; Engvall E; Albrechtsen R
CORPORATE SOURCE: Laboratory of Molecular Pathology, University Institute of Pathological Anatomy, Copenhagen, Denmark.
CONTRACT NUMBER: CA 28896 (NCI)
SOURCE: LABORATORY INVESTIGATION, **(1994 Nov)** 71 (5) 719-30.
Journal code: KZ4; 0376617. ISSN: 0023-6837.
PUB. COUNTRY: United States
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
OTHER SOURCE: GENBANK-X72760
ENTRY MONTH: 199412
ENTRY DATE: Entered STN: 19950110
Last Updated on STN: 19970203
Entered Medline: 19941227

AB BACKGROUND: The laminins are heterotrimeric basement membrane **glycoproteins**. Eight subunits that can be assembled into laminins have been characterized and are known as: A, B1, B2, S, M, K, B2t, B1k laminin chains. Although many neoplastic cells **secrete** laminins and some of them even assemble basement membranes, the pattern of production of various laminin subunits remains to be explored. EXPERIMENTAL DESIGN: The expression of laminin was examined in several human carcinoma cells using a panel of specific cDNA probes as well as polyclonal and chain specific monoclonal antibodies. For this purpose a human laminin S chain 2 kb cDNA was isolated and characterized and used together with existing probes for laminin chains. RESULTS: All carcinoma cell lines had a high level of expression of three light chains (B1, S and B2) mRNA. In contrast, the heavy chains of laminin, A and M, were expressed in negligible amounts as detected by Northern blotting and PCR. The only exception was the HU-1 **lung adenocarcinoma** cell line which expressed significant quantities of laminin M chain mRNA and lower levels of laminin A chain mRNA. The presence in the HU-1 cells of translated polypeptides was demonstrated by immunofluorescence staining. The cells contained both B1 and S chain laminin in the cell layer, but preferentially **secreted** the B1 chain into the culture supernatant as shown by Western blotting. The 300 to 400 kDa M chain immunoreactive band was found in laminin **secreted** into the culture medium of HU-1 cells. Immunoprecipitation of biosynthetically labeled proteins showed that the M chain was synthesized as a complex with B chains. Little or no A chain laminin was detected in the culture medium supernatant. HU-1 cells also synthesized the newly described laminin variant, epiligrin which was **secreted** into the medium. Thus, the HU-1 cells **secreted** two laminin variants: M-B1-B12 laminin and epiligrin into the culture medium. Immunostaining of HU-1 nude mice tumors showed that tumor basement membranes contained M, B1, and B2 laminin and epiligrin immunoreactivity but apparently no S chain. CONCLUSIONS: All human carcinoma cell lines produced laminin chains B1, B2 and S, but no or

L7 ANSWER 10 OF 24 MEDLINE
ACCESSION NUMBER: 89340138 MEDLINE
DOCUMENT NUMBER: 89340138 PubMed ID: 2474525
TITLE: A human monoclonal antibody recognizing a surface antigen on stomach cancer cells.
AUTHOR: Yoshikawa K; Furukawa K; Ueda R; Iwasa S; Lloyd K O; Notake K; Takahashi T
CORPORATE SOURCE: Department of Microbiology, Aichi Medical University, Japan.
CONTRACT NUMBER: CA 08748 (NCI)
CA 33049 (NCI)
SOURCE: JAPANESE JOURNAL OF CANCER RESEARCH, **(1989 Jun)** 80 (6) 546-53.
Journal code: HBA; 8509412. ISSN: 0910-5050.
PUB. COUNTRY: Japan
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 198909
ENTRY DATE: Entered STN: 19900309
Last Updated on STN: 19970203
Entered Medline: 19890908

AB Lymph-node lymphocytes of a patient with stomach cancer were fused with the mouse-human heterohybridoma, HM-5. A clone (2F9) was isolated that showed stable production of an IgM antibody reactive with NUGC-4 stomach cancer cell line. This antibody reacted predominantly with a cell surface **antigen** on cell lines originating from gastro-intestinal cancer and **adenocarcinoma** of **lung**, whereas it was not generally reactive with other types of cancers, or with normal kidney cells or fibroblasts. Biotin-labeled 2F9 antibody clearly stained cell smears and the nude mouse tumor of NUGC-4, but it did not show a positive reaction with stomach cancer tissues obtained from more than 10 patients, indicating that the **antigen** detected is very weakly expressed on tumor cells or on a limited number of stomach cancers. The **antigen** **shed** from NUGC-4 cell line was detected in the culture supernatant. 2F9 antibody precipitated a **glycoprotein** with a molecular weight of over 200 kilodaltons as well as a possible glycolipid, from NUGC-4 cells labeled with [3H]glucosamine or [35S]-H2SO4. Periodic acid treatment of the tissue section decreased reactivity with 2F9 antibody, but heat, neuraminidase or protease treatment did not. These results suggested that the epitope is present on a carbohydrate moiety not containing sialic acid, and that a part of the **antigen** molecule is sulfated.

L7 ANSWER 23 OF 24 BIOSIS COPYRIGHT 2001 BIOSIS
ACCESSION NUMBER: 1990:416104 BIOSIS
DOCUMENT NUMBER: BA90:76905
TITLE: IMMUNOHISTOCHEMICAL STUDIES ON THE EXPRESSION OF TENASCIN IN HUMAN LUNG CANCERS.
AUTHOR(S): HIRAGURI S
CORPORATE SOURCE: DEP. SURGERY, TOKYO MED. COLL.
SOURCE: J TOKYO MED COLL, (1990) 48 (2), 205-212.
CODEN: TIDZAH. ISSN: 0040-8905.
FILE SEGMENT: BA; OLD
LANGUAGE: Japanese

AB The monoclonal antibody NCC-LU-45 was selected from a hybridoma fusion of spleen cells of nude mice immunized by xenotransplantation with the moderately differentiated human **lung adenocarcinoma** cell line NCC-LU-201 and rejection with isograft of spleen cells. NCC-LU-45 recognized a 250 kd molecule as a major component in the conditioned medium of NCC-LU-201 used as an immunogen. Solidphase radioimmunoassay and immunoblotting analysis revealed that the molecule detected by NCC-LU-45 was an extracellular matrix **glycoprotein**, tenascin. The tissue distribution and expression of tenascin defined by immunohistochemistry using NCC-LU-45 in human normal tissue sections and human lung cancer tumor tissue sections obtained from 133 cases of resected lung cancer were examined. In normal tissue sections, NCC-LU-45 defined tenascin in the basement layer of bronchial epithelium, squamous epithelium and intestinal mucosa, the stroma surrounding renal tubules, normal liver sinusoid, spleen cord, some smooth muscles and vascular endothelium, but not in alveolar epithelium, pancreas cardiac muscle, nerve, ovary and adrenal gland. In lung cancer tumor tissue sections, tenascin was detected in the stroma surrounding tumor cells of all 133 cases examined, but not in normal lung tissues. In papillary proliferating well differentiated adenocarcinoma, tenascin staining was strikingly restricted to the stroma surrounding cancer cells, compared with the distribution of fibronectin as a control. The **secretion** of tenascin into the conditioned medium of the lung cancer cell line NCC-LU-201 used as an immunogen indicates that tenascin could be produced by cancer cells as well as by stromal cells. The distribution of tenascin in lung cancer tissue resembled a cancer bed and might indicate that tenascin was necessary for cancer development, and some cancer cells could produce tenascin as an autocrine substance.

L8 ANSWER 1 OF 1 MEDLINE DUPLICATE 1
ACCESSION NUMBER: 97338301 MEDLINE
DOCUMENT NUMBER: 97338301 PubMed ID: 9194861
TITLE: Genetic immunization with the free human chorionic gonadotropin beta subunit elicits cytotoxic T lymphocyte responses and protects against tumor formation in mice.
AUTHOR: Geissler M; Wands G; Gesien A; de la Monte S; Bellet D; Wands J R
CORPORATE SOURCE: Molecular Hepatology Laboratory, Massachusetts General Hospital Cancer Center, Charlestown 02129, USA.
CONTRACT NUMBER: AA-02169 (NIAAA)
CA-35711 (NCI)
SOURCE: LABORATORY INVESTIGATION, (1997 Jun) 76 (6) 859-71.
Journal code: KZ4; 0376617. ISSN: 0023-6837.
PUB. COUNTRY: United States
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199707
ENTRY DATE: Entered STN: 19970724
Last Updated on STN: 19970724
Entered Medline: 19970715

AB The free beta subunit of human chorionic gonadotropin (hCG beta) is produced and secreted by human lung, bladder, and pancreatic tumors. We attempted to generate cytotoxic T lymphocytes (CTL) with activity against free hCG beta-producing tumors by genetic immunization using a construct containing a beta subunit expressing cDNA. To assess CTL activity in vivo, a cloned syngeneic SP2/O myeloma call line was established that constitutively expresses the free hCG beta protein. Inoculation of this cell line into BALB/c mice produced large tumors within 2 weeks. However, mice immunized with the free hCG beta expression construct demonstrated a marked reduction of tumor size and weight compared with animals immunized with mock DNA ("empty" plasmid). Indeed, 30% of immunized mice were tumor-free after 3 months and thus considered long-term survivors. Inhibition of tumor growth was strongly associated with the level of CTL activity present in CD8+ cells derived from the spleen. In addition, immunized mice developed high titer anti-hCG beta antibodies that neutralized the biologic effects of the intact **hCG glycoprotein** hormone on its cellular receptor as well. These results illustrate that substantial cellular and humoral immune responses to the free hCG beta subunit may be generated by DNA immunization. This study thus presents a potential approach to inhibiting growth of human tumor cells that produce and secrete the free hCG beta protein.

L12 ANSWER 3 OF 4 BIOSIS COPYRIGHT 2001 BIOSIS
ACCESSION NUMBER: 1999:527517 BIOSIS
DOCUMENT NUMBER: PREV199900527517
TITLE: **Lectin** enhancement of the lipofection efficiency in human lung carcinoma cells.
AUTHOR(S): Yanagihara, Katsunori; Cheng, Pi-Wan (1)
CORPORATE SOURCE: (1) Department of Biochemistry and Molecular Biology and the Eppley Institute for Cancer Research, University of Nebraska Medical Center, 984525 Nebraska Medical Center, Omaha, NE, 68198-4525 USA
SOURCE: Biochimica et Biophysica Acta, (Oct. 18, 1999) Vol. 1472, No. 1-2, pp. 25-33.
ISSN: 0006-3002.
DOCUMENT TYPE: Article
LANGUAGE: English
SUMMARY LANGUAGE: English

AB Poor transfection efficiency of human lung carcinoma cells by lipofection begs further development of more efficient gene delivery strategies. The purpose of this study was to determine whether **lectins** can improve the lipofection efficiency in lung carcinoma cells. A549, **Calu3**, and H292 cells grown to 90% confluence were transfected for 18 h with a plasmid DNA containing a beta-galactosidase reporter gene (pCMVlacZ) using lipofectin plus a **lectin** as the vector. Ten different **lectins**, which exhibit a wide range of carbohydrate-binding specificities, were examined for their abilities to enhance the efficiency of lipofection. The transfected cells were assessed for transfection efficiency by beta-galactosidase activity (units/mug protein) and % blue cells following X-Gal stain. Lipofectin supplemented with Griffonia simplicifolia-I (GS-I) yields largest enhancement of the lipofection efficiency in A549 and **Calu3** cells (5.3- and 28-fold, respectively). Maackia amurensis gives the largest enhancement (6.5-fold) of lipofection efficiency in H292 cells. The transfection efficiency correlates with the amounts of DNA delivered to the nucleus. Binding of FITC-labeled GS-I and the enhancement of the lipofection efficiency by GS-I were inhibited by alpha-methyl-D-galactopyranoside, indicating an alpha-galactoside-mediated gene transfer to lung carcinoma cells. We conclude that **lectin**-facilitated lipofection is an efficient gene delivery strategy. Employment of cell type-specific **lectins** may allow for efficient cell type-specific gene targeting.

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L14 ANSWER 21 OF 32 MEDLINE DUPLICATE 14

ACCESSION NUMBER: 92103930 MEDLINE
DOCUMENT NUMBER: 92103930 PubMed ID: 1760927
TITLE: Clinical use of **tumor** markers in oncology.
AUTHOR: Jacobs E L; Haskell C M
CORPORATE SOURCE: Department of Medicine, UCLA School of Medicine.
SOURCE: CURRENT PROBLEMS IN CANCER, (1991 Nov-Dec) 15 (6) 299-360.
Ref: 218
Journal code: DU8; 7702986. ISSN: 0147-0272.
PUB. COUNTRY: United States
Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
(REVIEW, ACADEMIC)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199202
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AB The perfect **tumor** marker would be one that was produced solely by a **tumor** and secreted in measurable amounts into body fluids, it should be present only in the presence of **cancer**, it should identify **cancer** before it has spread beyond a localized site (i.e., be useful in screening), its quantitative amount in bodily fluids should reflect the bulk of **tumor**, and the level of the marker should reflect responses to treatment and progressive disease. Unfortunately, no such marker currently exists, although a number of useful but imperfect markers are available. The predominant contemporary markers are discussed here by chemical class, as follows: **glycoprotein** markers, including carcinoembryonic antigen (CEA), alpha-fetoprotein (AFP), beta-human chorionic gonadotropin (beta-hCG), and prostate specific antigen (PSA); mucinous **glycoproteins**, including CA 15-3, CA 19-9, mucinous-like **cancer** antigen and associated antigens, and CA 125; enzymes, including prostatic acid phosphatase (PAP), neuron specific enolase (NSE), lactic acid dehydrogenase (**LDH**), and placental alkaline phosphatase (PLAP); hormones and related endocrine molecules, including calcitonin, thyroglobulin, and catecholamines; and, molecules of the immune system, including immunoglobulins and beta-2-microglobulin. The biologic properties of each group of **tumor** markers are discussed, along with our assessment of their role in clinical medicine today.

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mucinous - like Cancer antigen